

20011001.ba v03_n228.bam.20011001

>From ???@??? Mon Oct 1 00:00:57 2001 -0500
Message-Id: <200110010500.f9150XTC005242@sco.theporch.com>
Date: Mon, 1 Oct 2001 00:00:00 CDT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3228

BOATANCHORS Digest 3228

Topics covered in this issue include:

- 1) Re: Odd VHF tube
by "ed sharpe" <esharpe@uswest.net>
- 2) Re: Kenwood T599
by David Hollander <n7rk@dancris.com>
- 3) Re: Odd VHF tube
by Dan Osborne <wb5afy@wb5afy.net>
- 4) Re: Odd VHF tube
by "Sandy W5TVW" <ebjr@i-55.com>
- 5) RE: Odd VHF tube
by "Richard W. Solomon" <w1ks@tiac.net>
- 6) Re: Re HQ-120
by "David L. Thompson" <thompson@mindspring.com>
- 7) Re: Odd VHF tube
by Bob Roehrig <broehrig@aurora.edu>
- 8) Re HQ-120
by "Brian Goldsmith" <brian.goldsmith@echo1.com.au>
- 9) Re: Re HQ-120
by "Luc Dugas" <collins2@globetrotter.net>
- 10) National NPW Gearbox Problem
by Jim Hill <slimjimzz@home.com>
- 11) Stancor ST-202-A ready for CX
by "Al Parker" <anchor@ec.rr.com>
- 12) Re: Re HQ-120
by "russ dworakowski" <wb3fau@hotmail.com>
- 13) Re: Odd 416B duck
by "Marty's Refl. Drop" <polepeeg@aa4rm.ba-watch.org>
- 14) Re HQ-120 - AR-77
by "philip" <dgnova@erols.com>
- 15) Re: Re HQ-120 - AR-77
by "Brian Goldsmith" <brian.goldsmith@echo1.com.au>
- 16) Re: GB> 500kHz help wanted
by john <johnmb@nc.rr.com>
- 17) APR-5AX
by Mike Feher <n4fs@monmouth.com>
- 18) Hammarlund Tuned circuits??

by Ray Allen <w2kbr@bayserve.net>

Date: Sat, 29 Sep 2001 12:59:41 -0700
Message-ID: <000701c14921\$47277080\$0200000a@frontdesk1>
From: "ed sharpe" <esharpe@uswest.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Odd VHF tube
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

the 416 tube by western electric was also known as the jack morton triode.
This tube was used in the TD-2 long haul microwave relay link. we will later
this year have a large section on this system on the website
the museum has a prototype of this tube in it's collection.

ed sharpe archivist for smecc

----- Original Message -----
From: "john" <johnmb@nc.rr.com>
To: "Old Tube Radios" <boatanchors@theporch.com>
Sent: Saturday, September 29, 2001 12:49 PM
Subject: Odd VHF tube

> I ran across a couple small gold plated Western electric tubes
> ...(not sure what the form factor would be...never seen any such thing)...
> They're 416B's and would appear to be a microwave tube of some sort.
>
> Anyone know?
>
> Best
> John
>
>

Message-ID: <3BB62A5B.3CB5FA2@dancris.com>
Date: Sat, 29 Sep 2001 20:08:58 +0000
From: David Hollander <n7rk@dancris.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Kenwood T599
Content-Type: text/plain; charset=us-ascii; x-mac-type="54455854"; x-mac-

creator="4D4F5353"

Content-Transfer-Encoding: 7bit

I would also check all of the grounds - the screws holding the boards to the chassis which is grounding the board. Kenwood was notorious in the 1970's and early 80's for problems as a result of poor grounds. I had 3 Kenwood radios that I bought new quit working because of this problem.

Good luck,

Dave

--

Dave N7RK - Webmaster CADXA <http://cadxa.org>

Phoenix, Arizona *DXCC Honor Roll* *WAZ#23 - 75 Meter SSB*

ex-XE2/N7RK, N7RK/ZB2, VK2ERK, ZM0AJN, WB6NRK, WN6IWX

Boatanchor Collector Extraordinaire preferring Hallicrafters, National and what ever else looks interesting!

E-Mail: n7rk@dancris.com

Home Page:

<http://www.dancris.com/~n7rk>

Date: Sat, 29 Sep 2001 16:08:55 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Dan Osborne <wb5afy@wb5afy.net>
Subject: Re: Odd VHF tube
Mime-Version: 1.0
Content-Type: text/html; charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable
Message-ID: <2A09A3875A5@tcs003.wb5afy.net>

<p><pre>

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

* To the SENDER of this email: *

* Please don't use HTML tags or 'rich text' here. *

* Set your emailer to turn that off. *

</pre><p>

<html>

HI John -

Still use a couple of these tubes in my 5w driver for the 3456 Mhz

ham band.....bought the amps with tubes from Fair Radio in the

early 90's.

73,

At 03:49 PM 9/29/01 -0400, john wrote:

>I ran across a couple small gold plated Western electric tubes

>...(not sure what the form factor would be...never seen any such
thing)...

>They're= A0 416B's and would appear to be a microwave tube of some
sort.

>

>Anyone know?

>

>Best

>John

> </html>

Message-ID: <002001c1492b\$818ff080\$439fcdd1@ebjr>
From: "Sandy W5TVW" <ebjr@i-55.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Odd VHF tube
Date: Sat, 29 Sep 2001 16:08:39 -0500
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

----- Original Message -----
From: "john" <johnmb@nc.rr.com>
To: "Old Tube Radios" <boatanchors@theporch.com>
Sent: Saturday, September 29, 2001 2:49 PM
Subject: Odd VHF tube

> I ran across a couple small gold plated Western electric tubes
> ...(not sure what the form factor would be...never seen any such thing)...
> They're 416B's and would appear to be a microwave tube of some sort.
>
> Anyone know?
>
> Best
> John

>

>

These were special planar triodes with a very high mutual conductance. They would make extremely good VHF/UHF preamplifiers before the days of GasFETs! They also were very expensive. They were designed to screw into a cavity resonator.

73,

Sandy W5TVW

From: "Richard W. Solomon" <w1ksz@tiac.net>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: "Boatanchors" <boatanchors@theporch.com>
Subject: RE: Odd VHF tube
Date: Sat, 29 Sep 2001 17:38:30 -0400
Message-ID: <LOBBJFMMJJCIMDIAGBJLCEDGGFAA.w1ksz@tiac.net>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Well, that question dates you and my response will date me !!
The 416B is a Hi-Mu (Very High ...50,000 umho) triode used by WE in UHF Repeater/Amplifier service. (2-4 KMHz I think). At one time it was the Holy Grail of VHF/UHF preamps in Ham Service. Nothing short of a Paramp beat it. The grid structure is something to behold, its made of wire 1/10 the diameter of a human hair (or so the story goes). Today it makes a neat paperweight on the desk. I use it to kid all these new hot-shot RF engineers.

73, Dick, W1KSZ

-----Original Message-----

From: owner-boatanchors@theporch.com
[mailto:owner-boatanchors@theporch.com]On Behalf Of john
Sent: Saturday, September 29, 2001 3:49 PM
To: Old Tube Radios
Subject: Odd VHF tube

I ran across a couple small gold plated Western electric tubes ... (not sure what the form factor would be...never seen any such thing)... They're 416B's and would appear to be a microwave tube of some sort.

Anyone know?

Best

John

Message-ID: <001001c14937\$fdf97ea0\$6f5a56d1@default>
From: "David L. Thompson" <thompson@mindspring.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Re HQ-120
Date: Sat, 29 Sep 2001 18:42:15 -0400

The HQ 120 was based upon a Hazeltine patent as were many of the old console radios of the 1930's and 40's. There were a number of radio designs based on the superhet hazeltine design. Someone told me the design was co-held by RCA altho if true the AR-88 was the only receiver RCA sold based on the design. Somehow Marconi got the later RCA design as the CR-88 and CR-100 (mainly UK and Canada).

Hammarlund made improvements to the design over the years as they progressed from the HQ120 to 129 to 140 to 150 to 160, and finally 145. Their own design showed up in the Super Pro series and later HQ100/110/170/180 series. The Super Pro 600 and the 60Kcs IF based HC-10/SPC-10 (yes the same circuit in different boxes) with slot and improved CW/SSB AGC. This showed up in the HQ170, 180, and 145 in varying proportion. (Thanks to Frank Lester W4AMJ for this info). The HQ200 and HQ215 were unique Hammarlund designs and a matching transmitter for the HQ215 was planned but never left the drawing board.

I have an HQ 120 with some mods done by the last Hammarlund Engineer (product detector and 100kcs calibrator). He painted it a terrible green and put a few holes on the bud cabinet (still black). I gave one away to the local radio club for listening to W1AW code practice when I moved to Georgia 30 years ago. This one worked great and I hooked the HC-10 to it and used it as my back up. The HQ 120 was as stable as the much later HQ110 altho the 110 had better shaping and more calibration as it was ham bands only.

I have two original manuals for the HQ 120 which covers all models (120, 120X, and military model). Its not very detailed and Frank Lester admitted manuals of the day were lacking in detail as to complete schematics, alignment and even operating detail.

73 Dave K4JRB

Date: Sat, 29 Sep 2001 18:51:44 -0500 (CDT)
From: Bob Roehrig <broehrig@aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: Odd VHF tube
Message-ID: <Pine.OSF.4.31.0109291848360.13815-100000@students.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

>From the W.E. data sheet:

Frequency: 3950 MHz
heater 6.1VDC at 1.17A
zero bias
Plate voltage 200
Plate current 30ma
gain 3dB
bandwidth 100 MHz.
The top pin is the anode, the 3/4 x 40 threaded top is the grid
The cathode is the larger part of the body
Filament is the 2 wider spaced pins

Seems to me we used to use these as 2 meter and 450 MHz preamps
and they needed forced air cooling.

73 Bob Roehrig K9EUI
Aurora University Telecom/IS dept.
630-844-4898 broehrig@aurora.edu

Message-ID: <037f01c14947\$b9968680\$833b2dcb@workstation2>
From: "Brian Goldsmith" <brian.goldsmith@echo1.com.au>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re HQ-120
Date: Sun, 30 Sep 2001 10:34:54 +1000
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

David Thompson wrote:-

Somehow Marconi got the later RCA design as the CR-88 and CR-100(mainly UK
and Canada).

Greetings to all.It is my understanding that the RCA Victor Company,Limited
manufactured the AR88LF and other 88/91 variants in Montreal ,Canada.I don't
think the Marconi company was involved at all.

Brian Goldsmith.

Message-ID: <005301c14949\$dc36be60\$14966e42@globetrotter.qc.ca>
From: "Luc Dugas" <collins2@globetrotter.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Re HQ-120
Date: Sat, 29 Sep 2001 20:50:10 -0400
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

you are right brian, montreal rca made ar-cr 88-91 but the cr-100 is a
marconi model.

luc ve2lgj 73s

----- Original Message -----
From: "Brian Goldsmith" <brian.goldsmith@echo1.com.au>
To: "Old Tube Radios" <boatanchors@theporch.com>
Sent: Saturday, September 29, 2001 8:34 PM
Subject: Re HQ-120

> David Thompson wrote:-
> Somehow Marconi got the later RCA design as the CR-88 and CR-100(mainly
UK
> and Canada).
>
>
>
> Greetings to all.It is my understanding that the RCA Victor
Company,Limited
> manufactured the AR88LF and other 88/91 variants in Montreal ,Canada.I
don't
> think the Marconi company was involved at all.
> Brian Goldsmith.
>
>
>
>

Message-Id: <5.1.0.14.0.20010929174457.03735b50@pop3.norton.antivirus>
Date: Sat, 29 Sep 2001 17:54:17 -0700
To: Old Tube Radios <boatanchors@theporch.com>
From: Jim Hill <slimjimzz@home.com>
Subject: National NPW Gearbox Problem
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"; format=flowed

After months of searching, I bought a National NPW gearbox and dial at the TRW swap meet. The drive shaft is perpendicular to the panel, not right angle as used in the HRO. There is about a 3 minor division backlash, which seems to be caused by the anti-backlash gears (right side, facing dial) not working. In addition, turning the dial near 500 causes a small part similar to snap ring to move out and snap back in place. Any suggestions regarding disassembly/repair? The brown grease is still "greasy".

Thanks, Jim

Message-ID: <010d01c1494d\$13824b20\$6401a8c0@computer>

From: "Al Parker" <anchor@ec.rr.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Stancor ST-202-A ready for CX

Date: Sat, 29 Sep 2001 21:13:12 -0400

MIME-Version: 1.0

Content-Type: text/plain;
charset="iso-8859-1"

Content-Transfer-Encoding: 8bit

Hi all,

Well, a new toy came home with me earlier this week, a nice Stancor ST-202-A xmtr, 6V6-6L6-811 lineup. I got it on the air tonite, had a QSO with John, WB50AU, on 40m CW for abt 15 min. I'm feeding it with a VF-1, and after I got it's connections clean, the soft chirp disappeared & freq. stayed on. It's paired up with a Drake 2-B, makes nice setup. I haven't checked the plate meter's accuracy, or HV, but it looks like it easily loads up to 150w input. The MFJ tuner says it's got that much output, but I don't believe it much anyway.

I plan to be on 40CW with it in the CX tmw, plus hope to get the HB SSB rig on 20 for a while in the PM, and who knows what else. Might try 80m CW with the 202, those are the 2 coils I have for it, and the B&W 40 BVL is borrowed from John. Anyone have one for sale?

Hope to CU there.

73,

Al, W8UT

New Bern, NC

BoatAnchors appreciated here

anchor@ec.rr.com

<http://www.thecompendium.net/radio/>

And remember; "-They don't make tubes nowadays like they used to..."

From: "russ dworakowski" <wb3fau@hotmail.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: Re HQ-120

Date: Sun, 30 Sep 2001 08:33:19 -0400
Mime-Version: 1.0
Content-Type: text/plain; format=flowed
Message-ID: <LAW2-F553CHNaM0GGMz0000d5f4@hotmail.com>

Hey David, I recently purchased a SP-400X at a hamfest, you seem to know alot about Hammarlund, is there anything special you can tell me about this receiver? It sure is heavy. Russ

>From: "David L. Thompson" <thompson@mindspring.com>
>Reply-To: thompson@mindspring.com
>To: Old Tube Radios <boatanchors@theporch.com>
>Subject: Re: Re HQ-120
>Date: Sat, 29 Sep 2001 18:42:15 -0400
>
>The HQ 120 was based upon a Hazeltine patent as were many of the old
>console
>radios of the 1930's and 40'S. There were a number of radio designs based
>on the superhet hazeltine design. Someone told me the design was co-held
>by
>RCA altho if true the AR-88 was the only receiver RCA sold based on the
>design. Somehow Marconi got the later RCA design as the CR-88 and CR-100
>(mainly UK and Canada).
>
>Hammarlund made improvements to the design over the years as they
>progressed
>from the HQ120 to 129 to 140 to 150 to 160, and finally 145. Their own
>design showed up in the Super Pro series and later HQ100/110/170/180
>series.
>The Super Pro 600 and the 60Kcs IF
>based HC-10/SPC-10 (yes the same circuit in different boxes) with slot and
>improved CW/SSB AGC. This showed up in the HQ170, 180, and 145 in varying
>proportion. (Thanks to Frank Lester W4AMJ for this info). The HQ200 and
>HQ215 were unique Hammarlund designs
>and a matching transmitter for the HQ215 was planned but never left the
>drawing board.
>
>I have an HQ 120 with some mods done by the last Hammarlund Engineer
>(product detector and 100kcs calibrator). He painted it a terrible green
>and put a few holes on the bud cabinet (still black). I gave one away to
>the local radio club for listening to W1AW code practice when I moved to
>Georgia 30 years ago. This one worked great and I hooked the HC-10 to it
>and used it as my back up. The HQ 120 was as stable as the much later
>HQ110
>altho the 110 had better shaping and more calibration as it was ham bands
>only.
>

>I have two original manuals for the HQ 120 which covers all models (120,
>120X, and military model). Its not very detailed and Frank Lester admitted
>>manuals of the day were lacking in detail as to complete schematics,
>alignment and even operating detail.

>

>73 Dave K4JRB

>

Get your FREE download of MSN Explorer at <http://explorer.msn.com/intl.asp>

Date: Sun, 30 Sep 2001 10:40:59 -0400 (EDT)
From: "Marty's Refl. Drop" <polepeeg@aa4rm.ba-watch.org>
Message-Id: <200109301440.KAA05804@aa4rm.ba-watch.org>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Odd 416B duck

Via oral tradition*, thing was used as TX RF power amp. in TD & made a
xtal-controlled watt @ 4ghz.

1w out in TD because extra-close grid-cathode space to bypass transit-time
trubs. & led to 50k GM that looked so good for RX preamps.

Hams started "boosting pulls" & tried 'em as VHF rx pre-amps thinking
great NF w. high gm. Not to be, 6V 1A fil caused overriding Schottky
noise that made the 9-pin WE 417 w. gm 25k a much better performer.

WE themselves got sucked in by ham art'ls on a .5ghz 416B preamp &
discovered the Schottky effect paralysis themselves

Low fil. power hence reduced Schottky effect is why lower-gm-than-417
Nuvistor 6CW4s. etc. proved best tube VHF preamps.

M

* I've a pal that worked with Jack Morton. Some story there

Message-ID: <005501c149ef\$8f7c8b80\$5c152c42@default>
From: "philip" <dgnova@erols.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re HQ-120 - AR-77
Date: Sun, 30 Sep 2001 16:36:18 -0400
MIME-Version: 1.0
Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

The front end design of the HQ-120 --AR-77 is a little odd. If you look at the schematic, you will see the RF transformer connecting the RF amp and the converter is an autotransformer. The plate of the RF stage is connected to a tap on the transformer, while the converter grid is connected to the top of the transformer. The design of these two receivers , differ from the Super Pro or the AR-88.

Normally a conventional transformer is used at this location. ie primary connected to the RF stage and secondary connected to the converter.

dgnova@erols.com

Message-ID: <040101c149f4\$fbbbed500\$833b2dcb@workstation2>
From: "Brian Goldsmith" <brian.goldsmith@echo1.com.au>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Re HQ-120 - AR-77
Date: Mon, 1 Oct 2001 07:15:08 +1000
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Philip wrote:-

The front end design of the HQ-120 --AR-77 is a little odd.

Greetings to all.This was a common method of impedance matching RF transformers and tubes of the day.Have a look at the venerable BC312 circuit and you will see another example of the same thing.

Brian Goldsmith.

Message-Id: <3.0.3.32.20010930194806.0125cf48@pop-server.nc.rr.com>
Date: Sun, 30 Sep 2001 19:48:06 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: john <johnmb@nc.rr.com>
Subject: Re: GB> 500kHz help wanted
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I think that was Jeff Herman, was it not?

Best

John

At 08:32 AM 10/1/01 +1200, Barry Kirkwood wrote:

>Hello all,
>A group of us are restoring the old ZLD radio station at Musik Point,
>Auckland, New Zealand.
>We will be making application for permission to use 500kHz or an adjacent
>working frequency.
>I believe there is one gentleman in Hawaii with OK to use one or more of
>these MF channels.
>If we can get any leads about operations on these frequencies that have been
>approved we will include them in the documentation to support our case.
>73
>Barry
>end
>Barry Kirkwood PhD ZL1DD
>Signal Hill Homestay
>66 Cory Road
>Palm Beach
>Waiheke Island 1240
>NEW ZEALAND
>www.waiheke.co.nz/signal.htm
>
>
>

Date: Sun, 30 Sep 2001 21:45:43 -0400
From: Mike Feher <n4fs@monmouth.com>
Subject: APR-5AX
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <002e01c14a1a\$cb0b3900\$20c5be18@n4fs>
MIME-version: 1.0
Content-type: text/plain; charset=iso-8859-1
Content-transfer-encoding: 7BIT

While digging through some of the stuff in the basement I came across an R91/APR-5AX. Intriguing looking piece, so, did a little search. The only info I could find was by Chesson and he claims it takes two "plug-in" units to cover the entire range (1000 to around 6600 MHz.). The unit looks complete, and unmodified, yet I cannot seem to figure out how, or where a "plug-in" could be exchanged. Any one else has one of these beasts that can shed some light on it for me? Thanks & Regards - Mike

Mike B. Feher, N4FS
89 Arnold Blvd.
Howell NJ, 07731
(732) 901-9193

Message-ID: <3BB79FCB.8BED89B2@bayserve.net>
Date: Sun, 30 Sep 2001 18:42:19 -0400
From: Ray Allen <w2kbr@bayserve.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Hammarlund Tuned circuits??
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Group:

I have found, what appears to be tunes circuit modules for Hammarlund (maybe SP-600).

There are 4 of these things, each with a ceramic base about 1inch x 2 inches, on which there is a coil, tweaking air cap, small coil and a "stamp" cap. 3 of them are marked "31399", one is marked "31396", and that one also has a slug in the larger coil.

I managed to get a scan of these things, so if anybody wants to see a pix (sort of) of these things, please email direct....

They are for sale for ??? ...who knows...

es 73 Ray

--

Ray A. Allen, Sr., W2KBR
8303 Grainfield Rd.,
Severn, Maryland, 21144-2331

End of BOATANCHORS Digest 3228
